

1878 Maranville Dial Coin Tester by Malcolm H Mathias

1878 Harvey Maranville Dial Coin Tester – Background

This type of scale is also known as a Counterfeit Coin Detector (or CCD)

Harvey Maranville invented the third of his three coin testers in 1878 while he was living in Akron, Ohio, after he moved (1861) from Clinton, Ohio where he had invented his first two coin testers in 1857 and 1860.

Newman and Mallis describe these three coin testers in their book *U.S. Coin Scales and Mechanical Counterfeit Coin Detectors* (1999 - Lib of Congress Cat No. 91-091329, pages IV-4-1 to IV-4-4). Newman and Mallis dedicated their book to the International Society of Antique Scale Collectors and Michael A. Crawforth. Newman and Mallis were members of: The International Society of Antique Scale Collectors (ISASC); American Numismatic Society; and American Numismatic Association.

The International Society of Antique Scale Collectors (ISASC) assisted further research into the three Maranville coin testers via an email sent to all ISASC members seeking photos of examples in personal collections. The author is grateful for the ISASC member responses.

The Eric P. Newman Numismatic Education Society (EPNNEs) based at Washington University in St Louis awarded an inaugural Newman Numismatic Grant to the author to research the three Maranville coin testers. The author is grateful for the opportunity to tour U.S.A inspecting examples of all three versions of Maranville's coin testers.

The author of these articles is very aware of the previous ground-breaking work of Newman and Mallis, and grateful for the opportunity to learn and document more of this interesting stage in American numismatic history which was intertwined with broader American history.

The author considered the different audience reading about Maranville, and how to best organise the information for the different purposes that scale collectors, numismatists and/or historians might wish to access. For this reason, the Maranville story is told in six parts:

Descriptive 1857 Maranville Article	1857 Maranville Pictorial Census
Descriptive 1860 Maranville Article	1860 Maranville Pictorial Census
Descriptive 1878 Maranville Article	1878 Maranville Pictorial Census

This third coin tester in 1878 differed from his first two coin testers in 1857 and 1860 that both used a sliding beam to provide the counter-balance for the coin being tested. This third tester used a weighted disc to provide the counter-balance for the coin being tested.

This third balance in 1878 also differed from his first two coin testers in 1857 and 1860 that were both designed to test both US and Foreign coins, for both silver and gold coins. This third tester was designed to weigh only US silver and gold coins, no Foreign coins at all.

Newman and Mallis described the 1878 coin tester as:

Flat nickel plated brass plate with integral knife edges that rotate about a metal posts set on a metal base. Raised edge on one side has markings to indicate the diameter of all United States silver and gold coins then current. The same side has notches in varying depths to gauge the thickness of the coin. The counterweight end has a revolving disk with the counterweight attached. This weight is moved to a predetermined position to weigh specific

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coins. Overall length of the device is three and one half (3 ½) inches (8.90 cm) long and two and three eighths (2 3/8) inches (6.03 cm) wide.

Source: Newman, Eric P. and Mallis, A. George, 1999, *U.S. Coin Scales and Mechanical Counterfeit Coin Detectors*, CHP. IV: SEC. 4: P 1 [IV-4-3]

Newman and Mallis observed that while Patent No 203,057 was issued for a combined Postal Scales and Counterfeit Coin Detector, that no such device was known to them. Instead, the third device was the 1878 Dial Coin Tester that came in a “plain black box.” This author has located several 1878 Dial Coin Testers in blue boxes, but no black boxes.

The 1878 Dial Coin Tester was sold in a small blue box that would easily fit into a pocket.



Dan Hamelberg Collection

DIAL COIN TESTER – DIRECTIONS

Let us test or examine a 50 cent piece. Move the dial to the right with thumb and finger, so that the mark 50 is at index. Place the coin on face at left end, so that the edge touches the lip turned up and it will balance if genuine. Should it appear to be larger than usual you may test the size (diameter and thickness). At left end are two scales, one side for gold and the other for silver coin which will be readily understood. The thickness will vary in coin sizing to milling at edge. It should be tried in about three places, and it will average about the mark set to each coin. Coin worn by handling will measure a trifle less. The danger is in coin measuring larger than the scale indicates. The *jingle* should be tried in doubtful pieces which is always good in genuine coin. All other pieces of gold and silver are tested in the same way.

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1878 Maranville Dial Coin Tester
(Actual size – 88 mm long, 60 mm wide)

Balancing a genuine US Silver Dollar - Bill James Collection

A genuine coin must satisfy three tests – weight, diameter and thickness. The 1878 Dial Coin Tester provides tests for these three dimensions:



1 The expected diameter is marked for each coin value on the pan area.

Left is graduated for Silver 100, 50, 25 and 10 cent coins.

Right is graduated for Gold 20, 10, 5, 3, 2½, and 1 dollar coins.

2 Thickness is tested in the “V” notches cut into the sides of the coin tester.

Left is graduated for Silver 100, 50, 25 and 10 cent coins.

Right is graduated for Gold 20, 10, 5, 3, 2½, and 1 dollar coins.

3 The dial is rotated to the mark for the coin being weighed, and it should balance.

Inner circle on Dial graduated for Silver 100, 50, 25 and 10 cent coins.

Outer circle on Dial graduated for Gold 20, 10, 5, 3, 2½, and 1 dollar coins.

It should again be noted that Maranville named this device “DIAL COIN TESTER” not a “Postal-Scale and Counterfeit-Coin Detector” as detailed in the Patent documents.
Eric Soslau Collection (Actual Size 88 mm long, 60 mm wide).



Bill James Collection



H. MARANVILLE.

Postal-Scale and Counterfeit-Coin Detector.

No. 203,057.

Patented April 30, 1878.

Fig. 1

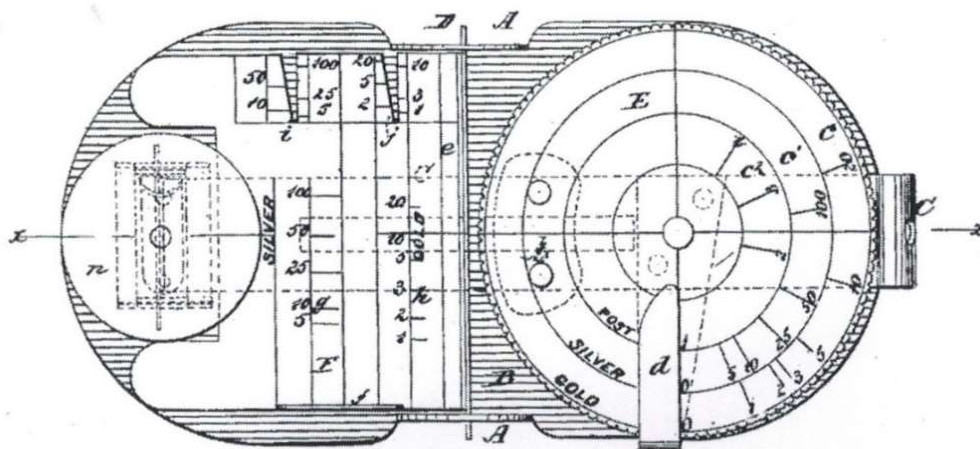
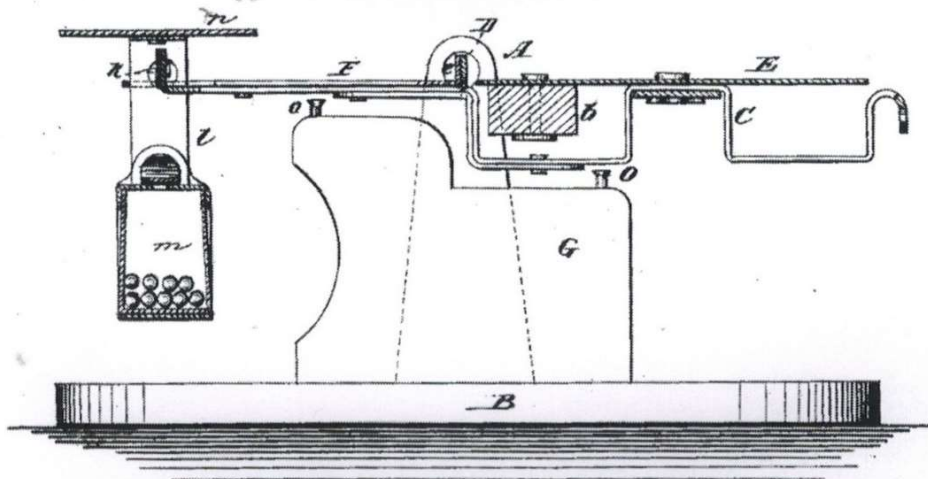


Fig. 2.



WITNESSES:

Francis McArthur.
C. Sedgwick

INVENTOR:

H. Maranville
BY *Mumt*

ATTORNEYS.

UNITED STATE PATENT OFFICE

HARVEY MARANVILLE, OF AKRON, OHIO, ASSIGNOR TO HIMSELF AND

SAMUEL D. STEWART, OF SAME PLACE

IMPROVEMENT IN POSTAL-SCALE AND COUNTERFEIT-COIN DETECTOR

Specification forming part of Letters Patent No. 203,057, dated April 30, 1878;

application filed March 7, 1878

To all whom it may concern:

Be it known that I, HARVEY MARANVILLE, of Akron, in the county of Summit and State of Ohio, have invented a new and useful Improvement in Scales, of which the following is a specification:

Figure 1 is a plan view of my improved scales. Fig. 2 is a longitudinal vertical section.

Similar letters of reference indicate corresponding parts.

The object of my invention is to provide scales for testing coin and weighing small articles, more especially coin and mail matter; and it consists in a beam having upon one end a graduated rotating disk, which carries the counterpoise, and upon the other end a scale for measuring the diameter and thickness of coin, and a pivoting platform for receiving the coin or packages to be weighed.

Referring to the drawing, A A are standards projecting perpendicularly from the base B, and C is a beam attached to a cross-bar, D, the edges of which are V-shaped and have a bearing in apertures in the standards A.

A disk, E, is pivoted to the beam C, and carries on its under surface a weight, b. The beam is bent or offset to permit of turning the disk, and the upper face of the disk is provided with three sets of graduations – one set for gold, one for silver, and one for mail matter.

The outer circle, c, on the disk is graduated for gold, the first graduation being for one dollar, the second for two and one-half dollars, the third for five dollars, the fourth for ten dollars, the fifth for twenty dollars, and so on. The second circle, e¹, is graduated for silver, the first graduation being for five cents, the second for ten cents, and so on. The third and inner graduation, c², represents weights corresponding to certain rates of postage, the first or zero graduation representing a package having a weight requiring one three-cent stamp, the second graduation representing a weight that requires two three-cent stamps, the third three three-cent stamps, and so on.

An arm, d, is attached to the beam C, and extends over the upper face of the disk E, and serves as an index in adjusting the disk. Upon the opposite side of the cross-bar D there is a plate, F, which is provided with two lips, e f, against which to place the coin in measuring the diameter. The lip e is riveted to the bar D, and the lip f is at right angles to it.

Upon the face of the plate F there are two sets of graduations – one set, g, for silver coin, the other set, k, for gold coin. The graduations for silver coin range from five cents to one dollar, and graduations for gold coin range from one to twenty dollars.

In the edge of the plate F, opposite the lip f, two V-shaped notches, I j, are formed. The notch I, which is for the measurement of the thickness of silver coin, is graduated for five, ten, twenty-five, fifty cents, and one dollar. The notch j is graduated for the measurement of the thickness of gold coin, the graduations being for coins ranging from one to twenty or fifty dollars.

The end of the beam C projects upward through a notch in the outer edge of the plate F, and to it is riveted a bar, k, whose upper edge is V-shaped. A stirrup, l, having apertures for receiving the ends of the bar k, is supported by the said bar, and has attached to it, below the pivot, a box, m, for containing shot or sand for adjusting the scale and for keeping the stirrup

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in a vertical position. A disk, n, is attached to the upper end of the stirrup, for receiving coin or other articles to be weighed.

When it is desired to weigh an article, the disk E is turned until the proper graduation appears at the indicating – bar d, when the weight b will be in the proper position to counterbalance the article. Coin is measured to thickness by the V-shaped notches i j, and its diameter is measured upon the scales g h by placing them against the lip f.

A block, G, is placed under the beam C, and in it there are two screws, o, one each side of the bar D, for limiting the motion of the beam.

The advantages claimed for my improved scale are that it is convenient, simple, and accurate, and, as all of the parts are connected together, none of them can become lost.

Having this described my invention, I claim as new and desire to secure by Letters Patent –

1. In scales, the beam C, having an upwardly convex middle bend that supports on a pivot the disk E, and concavities on each side that allow the passage of a weight, b, as set forth.
2. The combination of the graduated disks E and plates F, supported on beam C, the former having weight b, and the latter a stirrup, as and for the purpose specified.

HARVEY MARANVILLE

Witnesses: GEO. G. ALLEN
G. S. SCOTT

Period Advertisements for the Dial Coin Tester

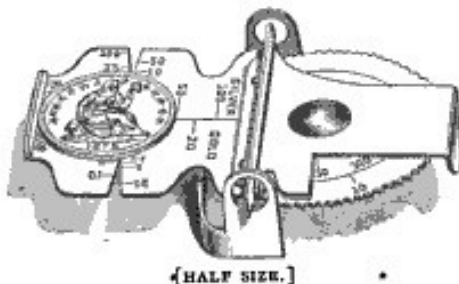
Scientific American announced Maranville's third Patent in the July 6, 1878 edition.

Mr Harvey Maranville, of Akron, Ohio, has invented Scales for testing coin and weighing small articles, more especially coin and mail matter. A beam is provided at one end with a graduated rotating disk, which carries the counterpoise, and at the other end with a scale for measuring the diameter and thickness of coin, and a pivoted platform for receiving the coin or packages to be weighed.

It is quite clear that Scientific American relied on the Patent specifications for their article as there is no evidence that Scales for "mail matter" were ever made by Maranville.

It is interesting to note that Patent No 203,057 assigns rights to both Harvey Maranville and Samuel D. Stewart, both of Akron, Ohio. An early 1879 advertisement in the Bankers Almanac & Register shows Stewart & Maranville to be Proprietors and Patentees. The advertised price was One Dollar, sent free to any address:

GOLD AND SILVER COUNTERFEIT DETECTOR.



THE DIAL COIN TESTER.

A perfect instrument for Testing Gold and Silver Coin. Thoroughly effective and cheap. Can be set instantly for any coin. There are no parts to be lost, all being united, nickel-plated, and beautifully finished. Sent free to any address upon receipt of price, *One Dollar*. Every Tester warranted. Abundant references given when desired. Address,

STEWART & MARANVILLE,

Proprietors and Patentees,

AKRON, Ohio.

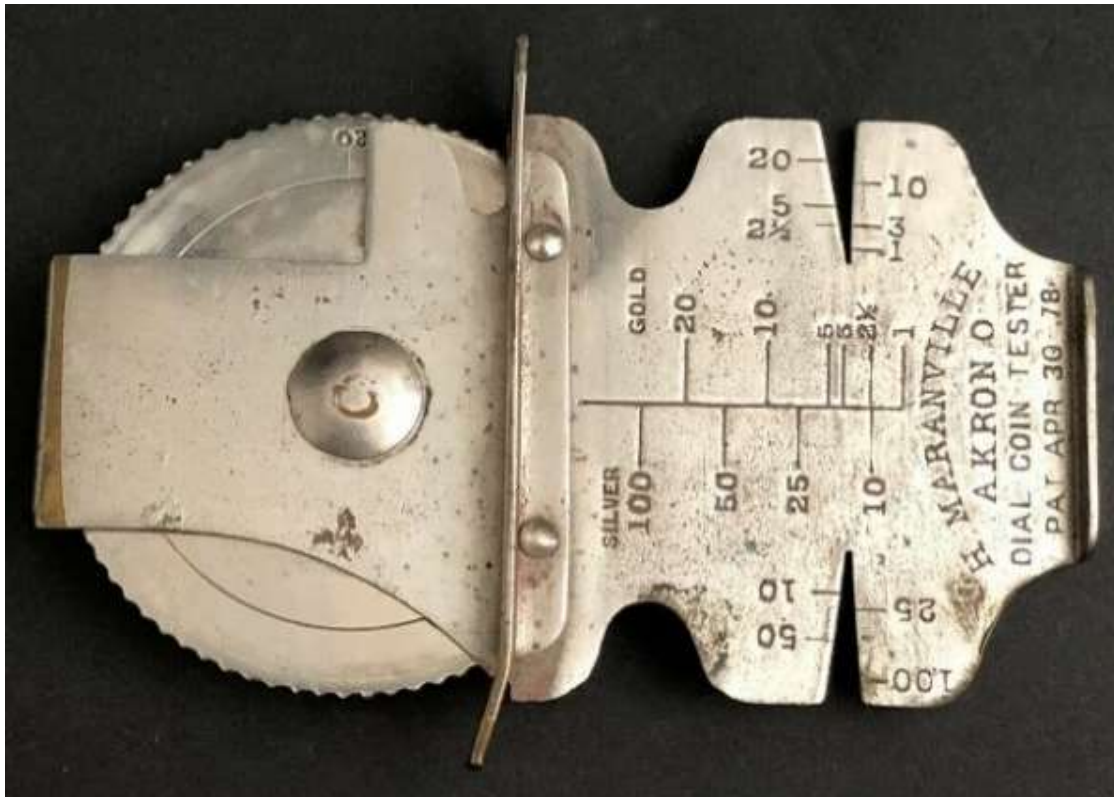
P. O. Box 1266.

Bankers Almanac & Register for 1879, N.Y. - 1879 advertisement p.39

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Samuel D Stewart was a dentist in Akron, Ohio. In 1863 Harvey Maranville was appointed under the United States Internal Revenue system, Inspector and Gauger of distilled and malt liquors and illuminating oils, for Summit County, Ohio. Maranville held his Inspector and Gauger position until about 1878, about eleven years before his death on January 12, 1889.

Samuel D Stewart is not mentioned on the device itself. There are no markings on the 1878 Dial Coin Tester to indicate who made the device – “H Maranville” is the only name on the device. We are left to wonder who made the 1878 device for Stewart & Maranville.



Ebay Auction April 4, 2019

We are also left to wonder what Samuel D Stewart contributed to the enterprise. Was Stewart an investor who helped finance the project? Did Stewart come up with the idea of the “dial” counterweight where Maranville had previously used brass beams to provide the counterweight. Did Stewart have the manufacturing experience to make the 1878 devices for Maranville? Perhaps further research might answer some of these questions in the future.


There are no “serial numbers” like those on the 1857 Maranville Coin Tester to indicate production numbers. However, the surviving serial numbers on the 1857 Maranville suggested six production runs of 100 each to produce a total of 600 examples of the 1857 coin tester: i.e: 39 x 1857 Maranville Coin Testers are known to have survived (6.5%).

This research has identified 34 surviving examples of the 1878 Dial Coin Tester. If we assume the same 6.5% survival rate it would suggest that 523 1878 Dial Coin Testers were originally made, probably six production runs of 100 each again, for a total of 600 again.

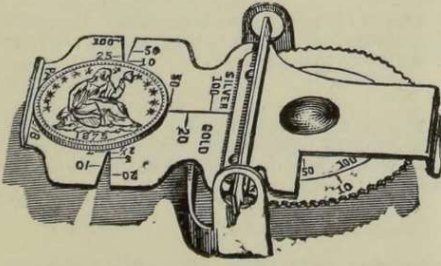
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Stewart and Maranville advertised the Dial Coin Tester for sale at One Dollar in 1879. The device was available directly from them at P.O. Box 1266 Akron, Ohio.

A later 1890 advertisement in Underwood's Counterfeit Reporter shows the Dial Coin Tester being sold for \$1 by The American Bank Reporter, 27 Park Place, New York.




PRICE, \$1.00.



DIAL COIN TESTER.
One of the most perfect and exact instruments for Detecting Counterfeit Coin in the World. FULL DIRECTIONS FOR USE SENT WITH EACH TESTER.
The American Bank Reporter,
27 PARK PLACE, - P. O. BOX 411, N. Y.

Underwood's Counterfeit Reporter, New York City, V 13, No 5, Sept Oct 1890, p.4

Finally, the Dial Coin Tester has been reduced to a price of 50 cents, and available in 1895 from The American Bankers Agency, 48 Church Street, New York.



Dial Coin Tester.
Instantly Detects
Counterfeit and Light Weight Coins



GOLD Coins, \$20, 10, 5, 3, 2.50 and 1.
SILVER ' \$1, 50, 25 and 10 Cents.
Gives weight, diameter and thickness, three tests the Counterfeiter cannot overcome.
Reduced to 50 Cents.
One of the most perfect instruments for detecting Counterfeit Coin in the World. Full directions for use sent with each Tester. Mailed to any part of the country for **50 Cents.**
The American Bankers' Agency,
48 Church St. (P. O. Box 411.) New York.

Underwood's Counterfeit Reporter, V 18, No 5, Sept & Oct 1895, p.48

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1878 Harvey Maranville Dial Coin Tester – Pictorial Census Record This type of scale is also known as a Counterfeit Coin Detector (or CCD)



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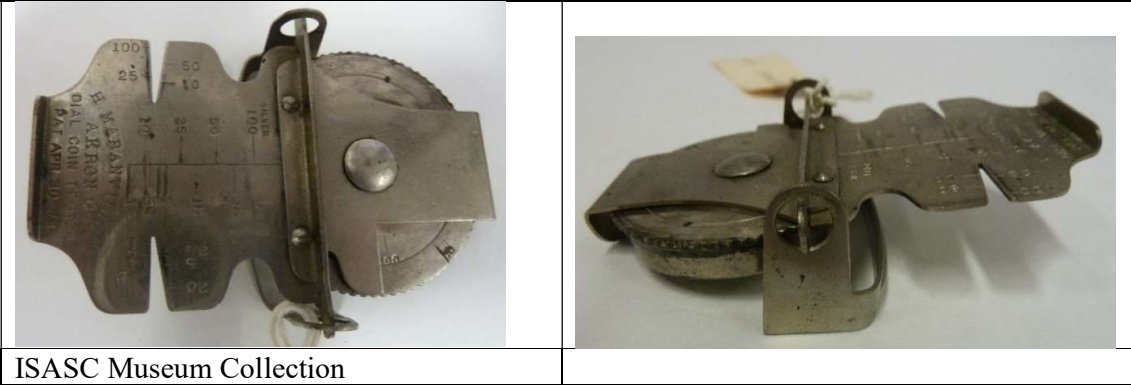
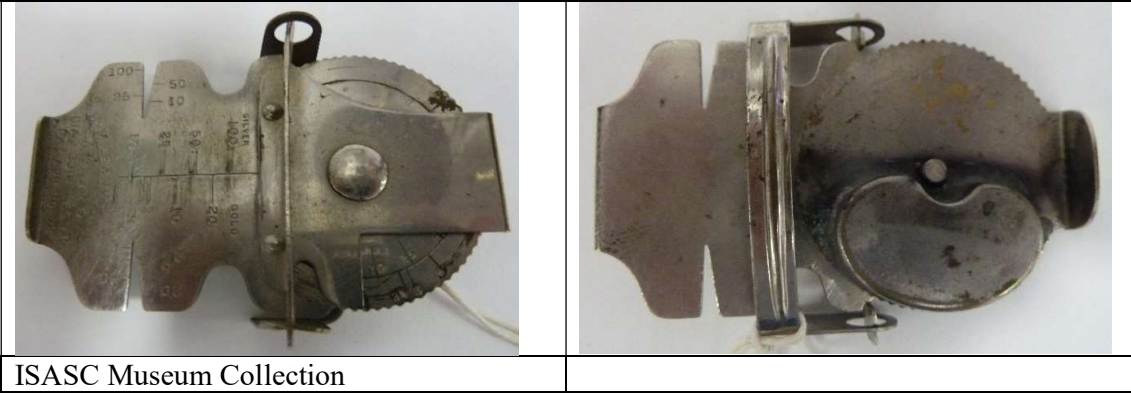
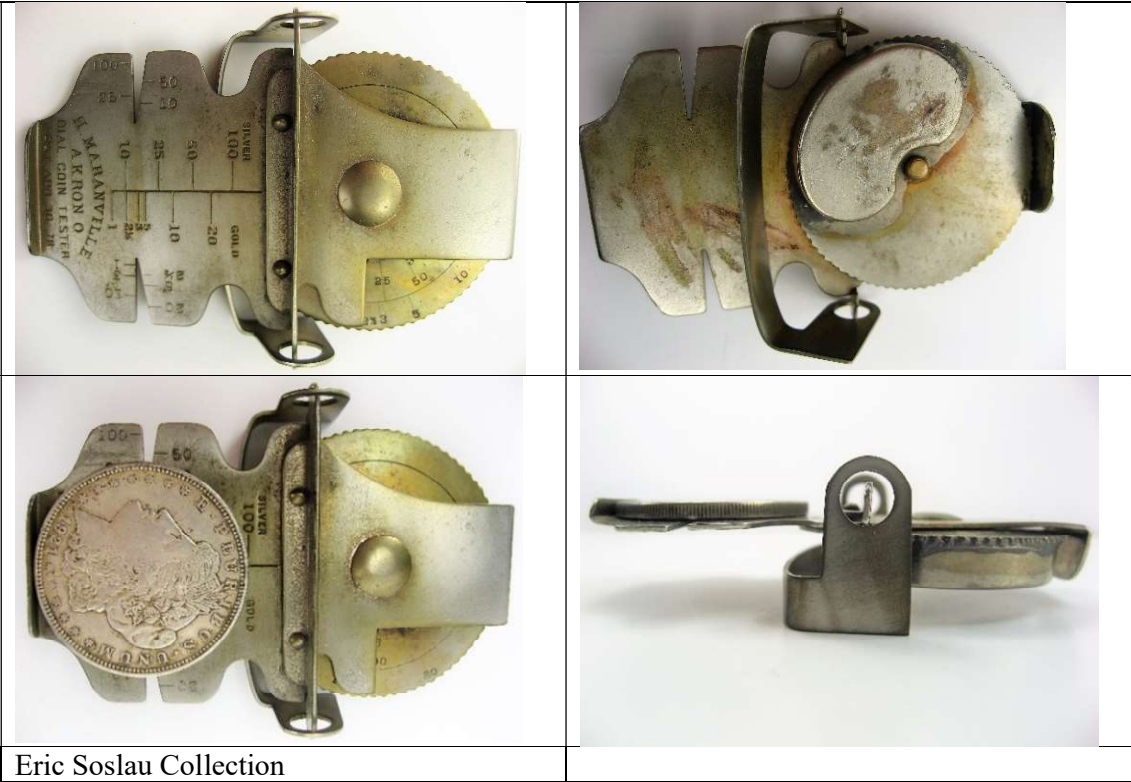


Mike Foster Collection

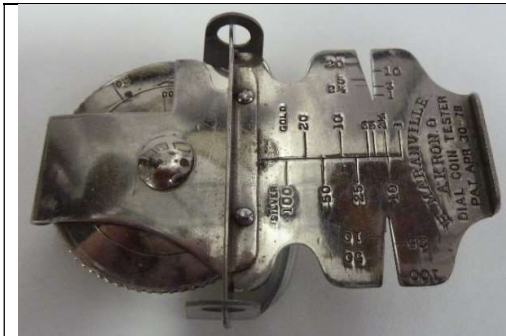


Malcolm Mathias Collection

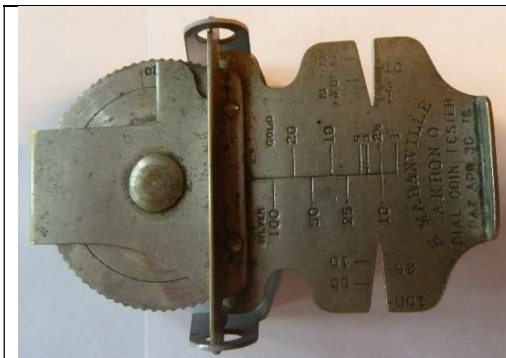
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ISASC Member Collection



Bob Jibben Collection



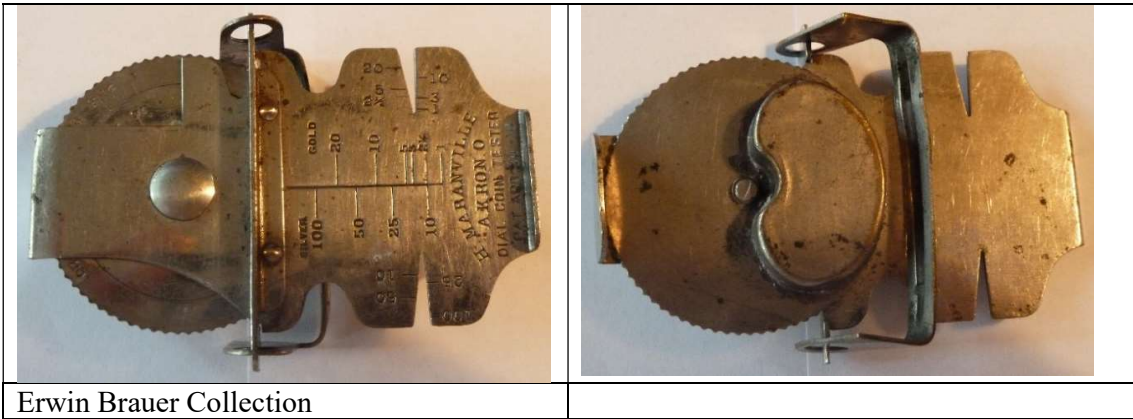
Dan Hamelberg Collection



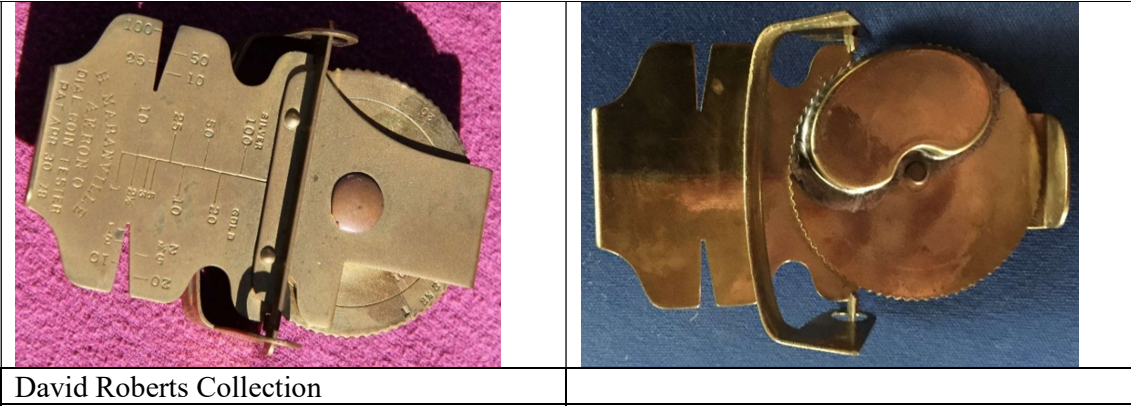
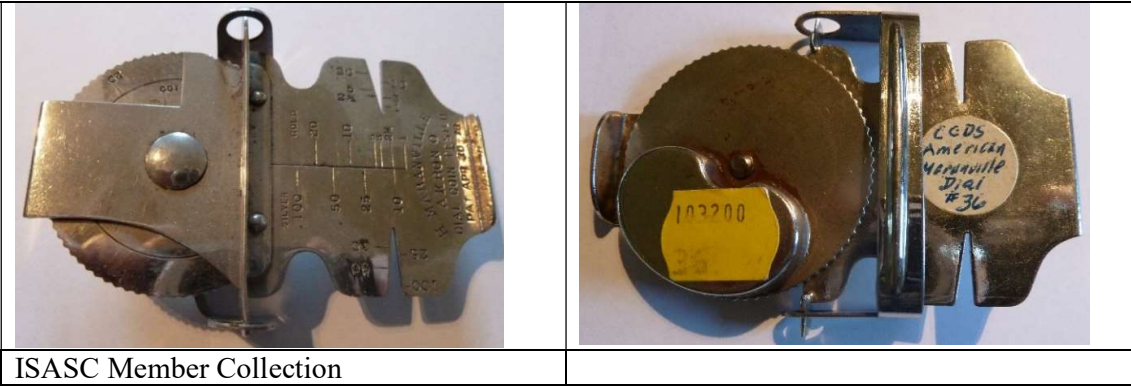
ISASC Member Collection



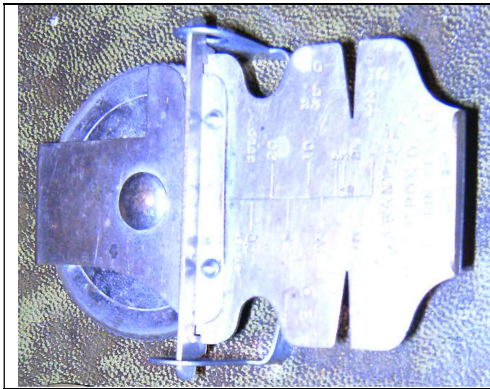
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Jaap Visser Collection



Don Schoenly Collection



Matthias Haas Collection

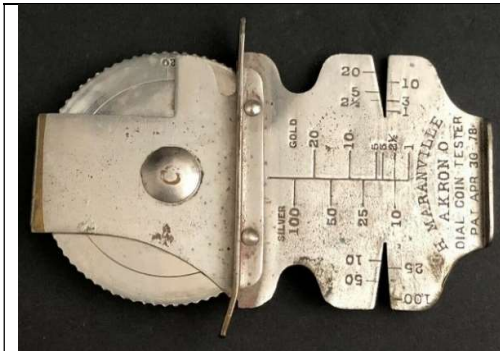


Ebay Auction Sold \$385 Sept 21, 2017

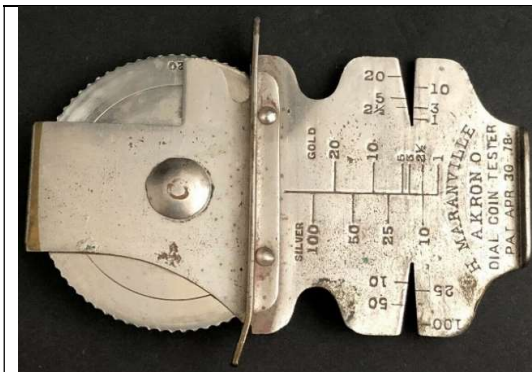


From John J. Ford, Jr. Collection

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Ebay Auction Sold \$599.50 April 4, 2019



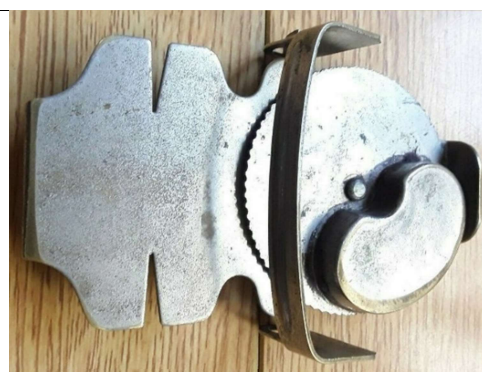
Ebay Auction Sold \$375 April 10, 2019



Ebay Auction Sold \$255 Sept 19, 2019





Ebay Auction Sold \$171.05 Sept 25, 2019



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Ebay Auction Sold \$25 April 9, 2019	

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Greg Parets Collection	

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Greg Parets Collection	

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Stephen Barnett Collection	

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Stephen Barnett Collection	

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Richard (Dick) Dewey Collection	